GRAND RIVER
WATERSHED
INVENTORY AND ASSESSMENT

This information is based on the
Grand River Watershed Inventory and Assessment
prepared by
Greg Pitchford, Fisheries Management Biologist
and
Harold Kerns, Northwest Fisheries Regional Supervisor
For additional information contact
Northwest Regional Fisheries staff
701 NE College Drive, St. Joseph, Missouri 64507

EXECUTIVE SUMMARY

The purpose of this plan is to consolidate information regarding streams and stream fish populations within the Grand River Basin. The size and complexity of the basin combined with limited existing information requires this document to be very general.

The Grand River Basin is located in northwest Missouri and southwest Iowa. The watershed consists of 7,900 square miles with over three-fourths of this area in Missouri. The basin is best characterized as rural with a declining population and no major urban areas. Land use is predominantly agricultural with cropland the largest component. The basin contains more than 1,000 third-order and larger streams. Approximately 2% of the basin is in public ownership.

Streams within the basin are typically turbid. Historical accounts indicate many basin streams have always been muddy. Even under pristine conditions it is unclear whether current water quality standards for turbidity would be achieved. Water quality standards for iron, magnesium and fecal coliform bacteria are frequently exceeded. Most water quality problems are associated with non-point source pollutants such as soil erosion and manure runoff.

Habitat loss within the basin is a major factor limiting stream fish populations. Filling of the channel with sand and silt has resulted in the loss of pool habitat and coarse substrate. Channelization and excessive levee construction are viewed as legitimate stream management practices by many landowners. Several streams have been channelized for over half their length and lack a suitable corridor. The combination of channel alterations and inadequate corridors has resulted in tall streambanks that are rapidly eroding. Except in the uppermost portions of the watershed, nearly all streambank erosion problems are too severe for biotechnical measures to be practical. Due to the severe streambank erosion problem, Missouri Department of Conservation (MDC) stream improvement efforts throughout the basin have very limited application.

The basin contains several remnant high quality stream reaches supporting diverse aquatic communities. These streams are characterized by unchannelized portions that are vertically stable due to bedrock control. Floating and fishing these streams would appeal to people if they were aware of their existence.

Sixty species of fish have been collected in the Grand River Basin since 1963. Most species are generalists that are tolerant of turbid water. Channel catfish (*Ictalurus punctatus*) are the most popular sportfish within the basin. Flathead (*Pylodictus olivaris*) and blue catfish (*I. furcatus*) provide trophy fishing opportunities. Topeka shiner (*Notropis topeka*), blue sucker (*Cycleptus elongatus*) and pallid sturgeon (*Scaphirhynchus albus*) are the fish species on or considered for the Federal endangered species list. Trout-perch (*Percopsis omiscomaycus*) and mooneye (*Hiodon tergisus*) are state listed as rare in Missouri. Paddlefish (*Polyodon spathula*) is listed as a watch list species. Anglers fished an estimated 74,357 days on the Missouri portion of the Grand River in 1987.

Management efforts will concentrate on the protection of high quality watersheds or those that can be improved with a reasonable amount of effort. Cooperative efforts with other resource agencies during the permitting process will be important to protect high quality habitat. Landowner assistance through technical assistance, cost share and education will be vital to success within high priority sub-basins. An emphasis on public awareness will be maintained throughout the basin through various media outlets, aquatic education programs and increased stream access.

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